

AMENDED IN ASSEMBLY APRIL 29, 2015

AMENDED IN ASSEMBLY APRIL 6, 2015

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

ASSEMBLY BILL

No. 1094

Introduced by Assembly Member Williams
(Coauthors: Senators Pavley and Wolk)

February 27, 2015

An act to add Section 25327 to the Public Resources Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 1094, as amended, Williams. Energy usage: plug-in equipment.

Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission), on a biennial basis, to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery, and distribution. Existing law requires the Energy Commission, beginning November 1, 2003, and biennially thereafter, to adopt an integrated energy policy report containing an overview of major energy trends and issues facing the state.

Under existing law, the Public Utilities Commission has regulatory jurisdiction over the public utilities, including electrical corporations.

This bill would require the Energy Commission, in collaboration with the Public Utilities Commission, to conduct an analysis of plug-in equipment electricity consumption, as specified, and set ~~statewide~~ *statewide, long-term energy efficiency* targets for the ~~greenhouse gases emitted by the generation of~~ the electricity consumed by plug-in equipment. The bill would require the Energy Commission, in

collaboration with the Public Utilities Commission, to develop, track the progress of, revise, and update an implementation plan to achieve those ~~statewide~~ targets, as specified. The bill would require the Public Utilities Commission, in collaboration with the Energy Commission, to work with stakeholders to address challenges to the achievement of those ~~statewide~~ targets.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. (a) The Legislature finds and declares all of
2 the following:

3 (1) Residential and commercial buildings and the systems and
4 equipment within them were responsible for 69 percent of all
5 electricity consumption in California in 2013, the equivalent output
6 of 70 500-megawatt powerplants. Under the 2000–13 historical
7 growth trends, this is projected to increase to the equivalent of 79
8 powerplants by 2030. The electric power sector is the second
9 largest source of greenhouse gas emissions in California after
10 transportation, comprising 21 percent of the state’s total emissions.

11 (2) Plug-in equipment is responsible for two-thirds of electricity
12 consumption in residential buildings and a significant share of
13 electricity consumption in office buildings. This electricity
14 consumption is increasing rapidly, indicating that current plug-in
15 equipment efficiency policy efforts are outpaced by the growth in
16 the number of electronic devices and their electricity consumption,
17 jeopardizing California’s ability to meet its energy and climate
18 goals.

19 (3) Cost-effective technologies such as those used in mobile
20 electronic devices already exist to significantly reduce the
21 electricity consumption of plug-in equipment, but are not used in
22 the majority of plug-in electronic devices.

23 (4) California has set ambitious goals for renewable energy and
24 energy efficiency in the envelope, major systems, and lighting of
25 buildings, but does not have quantified goals for a category that
26 now represents two-thirds of the electricity consumption in the
27 state’s residential buildings and a significant share of the electricity
28 consumption in commercial buildings.

1 (5) Market barriers, such as a lack of consumer awareness and
2 information on product lifetime energy costs, and split incentives
3 between manufacturers who make product design decisions and
4 consumers who pay the electricity bill, give efficiency programs
5 and standards a critical role in realizing the economic potential for
6 energy efficiency in plug-in equipment.

7 (6) Challenges with the evaluation and the attribution of program
8 savings to utilities and program implementers, as well as the focus
9 on short-term savings, are limiting the effective use of these
10 programs to capture energy-saving opportunities that require
11 upfront investment to yield large future savings through market
12 transformation.

13 (7) The State Energy Resources Conservation and Development
14 Commission and the Public Utilities Commission have set a goal
15 to achieve zero net energy for all new residential buildings by 2020
16 and for all new, and a substantial proportion of existing,
17 commercial buildings by 2030.

18 (8) The Legislature supports the zero net energy goals of the
19 State Energy Resources Conservation and Development
20 Commission and the Public Utilities Commission as a key strategy
21 to decarbonize the California economy.

22 (9) Plug-in equipment electricity consumption may not be fully
23 accounted for in zero net energy models, leading to buildings
24 designed and certified as zero net energy not necessarily achieving
25 zero net energy in real-world operation when occupants bring in
26 typical plug-in equipment.

27 (b) It is the intent of the Legislature to ensure that, in support
28 of the state's climate and energy goals, plug-in equipment energy
29 consumption is reduced where technologically feasible and cost
30 effective.

31 SEC. 2. Section 25327 is added to the Public Resources Code,
32 to read:

33 25327. (a) (1) For purposes of this subdivision "HVAC"
34 means heating, ventilation, and air conditioning.

35 (2) For the purposes of this section, except as provided in
36 paragraph (3), "plug-in equipment" means an electrical device that
37 plugs into a power outlet, including, but not limited to, household
38 appliances, electronic products, miscellaneous electrical loads,
39 portable and other plug-in HVAC equipment, and commercial
40 plug-in appliances.

1 (3) “Plug-in equipment” does not include the following:

2 (A) Non-plug-in HVAC, including split, packaged, or built-up
3 HVAC equipment that is typically installed by an HVAC
4 contractor.

5 (B) Lighting, whether built in or portable.

6 (C) Infrastructure loads wired directly to the building electrical
7 system, such as ground-fault circuit interrupter (GFCI) breakers
8 and outlets, wired smoke or carbon monoxide detectors, and
9 lighting switches.

10 (D) Electric vehicles.

11 (4) For purposes of this subdivision, power outlets include line
12 outlets, such as 110-volt alternating current (AC) and other
13 emerging power delivery mechanisms, including Universal Serial
14 Bus (USB), Power over Ethernet (PoE), and 24-volt direct current
15 (VDC).

16 (b) The commission shall, in collaboration with the Public
17 Utilities Commission, do all of the following:

18 (1) Conduct an analysis of plug-in equipment electricity
19 consumption, including appliances, electronics, and miscellaneous
20 electric loads, to assess current use and trends. The commission
21 shall draw on existing *data and already-funded studies* ~~and data~~
22 where appropriate to limit costs and reduce the time required to
23 complete the analysis. The analysis shall focus on the top 80
24 percent of plug-in equipment average annual electricity
25 consumption.

26 (2) Before January 1, 2018, ~~set statewide~~ *statewide, long-term*
27 *energy efficiency* targets for ~~the greenhouse gases emitted by the~~
28 ~~generation of the electricity consumed by plug-in equipment, in~~
29 ~~support of Executive Order S-3-05 to reduce greenhouse gases to~~
30 ~~80 percent below 1990 levels by 2050. The commission may also~~
31 ~~set intermediate 2030 and 2040 targets.~~ *equipment.*

32 (3) Develop an implementation plan, in consultation with
33 stakeholders, including equipment manufacturers and retailers, to
34 achieve the targets set forth in paragraph (2). The implementation
35 plan shall meet all of the following requirements:

36 (A) Be comprised of a complementary portfolio of techniques,
37 applications, and practices that may include, but need not be limited
38 to: revising existing, and setting new, appliance efficiency
39 standards; working with federal government agencies to revise
40 existing, and implement new, federal standards; implementing

1 incentive programs, appliance early replacement rebate programs
2 that link purchase and disposal rebates, and upstream market
3 transformation programs; expanding research and development;
4 and public outreach and education efforts.

5 (B) Consider costs and ratepayer protections, consistent with
6 Section 25000.1.

7 (C) Use an accurate cost-effectiveness methodology for
8 assessing the long-term value of efficiency savings and ensure that
9 benefits outweigh costs to ratepayers.

10 (4) Track the progress of the implementation plan in meeting
11 the ~~reduction~~ targets annually through the Electricity Supply
12 Analysis Division of the commission and the Energy Division of
13 the Public Utilities Commission.

14 (5) Revise the implementation plan and priorities in consultation
15 with stakeholders.

16 (6) Update the implementation plan, as a part of the integrated
17 energy policy report required pursuant to Section 25302, with a
18 report on the progress toward meeting the ~~reduction~~ targets through
19 the tracking required pursuant to paragraph (4).

20 (c) The Public Utilities Commission shall, in collaboration with
21 the commission, work with stakeholders, including equipment
22 manufacturers, equipment retailers, and electric utilities, to address
23 challenges that may limit or inhibit the achievement of the
24 ~~reduction~~ targets set forth in paragraph (2) of subdivision (b),
25 including, but not limited to, the evaluation and attribution of
26 energy savings and the enabling of market transformation
27 programs.